(No Model.)

J. A. GALLOWAY

FLOOD GATE.

No. 291,327. Patented Jan. 1, 1884.

Fig 1.

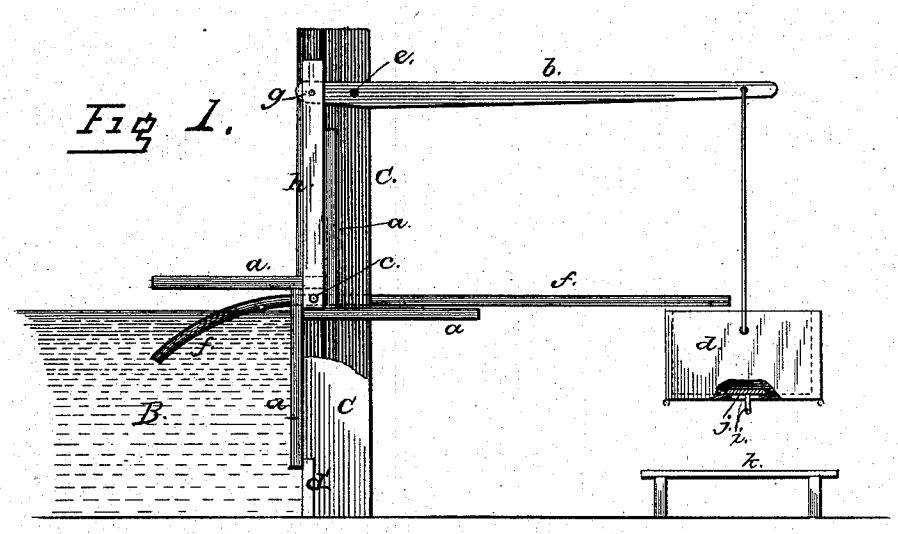
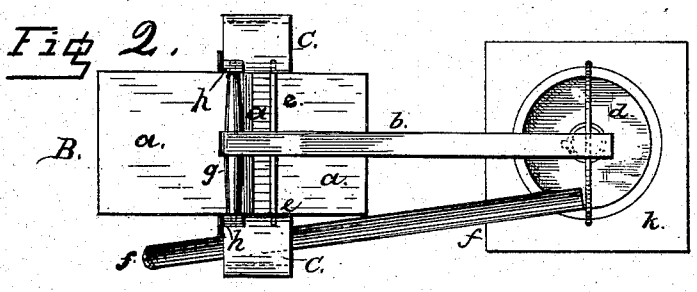


Fig 2.



WITNESSES:

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N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

JAMES ALEXANDER GALLOWAY, OF SPRING HILL, ASSIGNOR OF ONE-HALF TO EDWARD JAMES REMBERT, OF REMBERT'S, SOUTH CAROLINA.

FLOOD-GATE.

SPECIFICATION forming part of Letters Patent No. 291,327, dated January 1, 1884.

Application filed March 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES ALEXANDER GALLOWAY, a citizen of the United States, residing at Spring Hill, in the county of Sumter and State of South Carolina, have invented a new and useful Improvement in Flood-Gates, of which the following is a specification.

My invention relates to that class of flood-gates which operate automatically, to be opened by the action of the water when it rises above a given level for the purpose of allowing the water to escape; and it consists in the construction and combination of parts forming an automatic flood-gate, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my invention, a portion of the front post and of the bucket being broken away to show parts in the rear; and Fig. 2 is a plan view of the same.

a represents four gates, pivoted like the arms of a water-wheel to turn on axle *c*, which bears in the sides of a frame, *h*. This frame slides in vertical grooves or ways in posts C of the dam.

b is a lever, pivoted at *e* in the side posts, C. This lever carries at one end the frame *h*, pivoted on the axle *g*, and at the other end a bucket, *d*, hanging below high-water level.

f is a pipe, fixed in the dam at high-water level, to receive water from the forebay B and conduct it to the bucket *d*. The sides of gates *a* fit to swing closely against the posts C, and they are adapted to rest against the flush-board *d'* of the dam when their supporting-frame *h* is down, and to swing freely over it when frame *h* rises. The bottom of bucket *d* is provided with a stem-valve, *j*, the stem *i* of which is adapted to strike on a base, *k*, when the bucket descends, thus opening the valve.

The operation is as follows: When the water in the forebay B rises to high water-level, it enters spout *f* and flows into bucket *d*, causing it to descend and raise the frame *h*, so that the gate-arm resting against the flush-board *d'* is set free and all the arms revolve by the force of the water escaping thereby from the forebay. The bucket *d*, descending, rests the stem *i* of valve *j* on base *k*, thus opening the valve and allowing water to escape from the bucket until this end of the balance-lever *b* becomes the lightest. Then the gate descends, and one of its arms *a* is caught against the flush-board *d'*, again stopping the water until the forebay again fills high enough to escape through spout *f*. Then the operation described is repeated. The end of spout *f*, which enters the dam, is bent downward to take water from the forebay below the top of the water, to avoid floating matter, in order that the spout may not get stopped.

I am aware that flood-gates have before been operated by a lever, a bucket, and spout similar to mine, and I do not claim the same, broadly, as my invention; but

What I claim, and wish to secure by Letters Patent, is—

The side posts of a dam, having vertical grooves in them, and a flush-board connecting the posts, in combination with a lever pivoted to said posts, a bucket hung to one arm of said lever below high-water level, and means, substantially as described, for permitting water to escape from the bucket, a frame hung to the other arm of said lever, to slide in said vertical grooves, a gate having arms like a water-wheel, pivoted to revolve in said frame, and a spout passing through the dam at high-water level, whereby water may be carried from the forebay into the bucket and the gate freed from the flush-board, as and for the purpose described.

JAMES ALEXANDER GALLOWAY.

Witnesses:

R. W. DURANT,

S. A. NORRIS.